IFW #1

In the United States Patent and Trademark Office

Serial Number: 10/729,757
Appn. Filed: 12/05/2003
Applicant(s): Jeffrey L. Powers, Dennis W. Davis, David P. Thimm, James M. Stenz
Appn. Title: Portable Device for Dispensing Hand Treatments
Examiner/GAU: L. T. Truong / 3761

Mailed: June 23, 2004
At: Orlando, FL

Petition to Make Special

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants hereby respectfully petition that the above application be made special under MPEP Sec. 708.02 for the following reason; attached is a declaration in support thereof:

I. ☐ Manufacturer Available;*
II. ☐ Infringement Exists;*
III. ☐ Applicant's Health is Poor;
IV. ☐ Applicant's Age is 65 or greater;
V. ☐ Environmental Quality Will Be Enhanced;
VI. ☐ Energy Savings Will Result;
VII. ☐ Recombinant DNA Is Involved;*
VIII. ☒ Special Procedure: Search Was Made;*
IX. ☐ Superconductivity Is Advanced;
X. ☐ Relates to HIV/AIDS or Cancer;*
XI. ☐ Counters Terrorism.*

* ☒ Also attached, since reason I, II, VII, VIII, X, or XI has been checked, is the $ 130 Petition Fee pursuant to Rules 102 and 17(i).

Very respectfully,

Applicant(s): Dennis W. Davis, David P. Thimm, James M. Stenz

Attachment(s): Fee if indicated and supporting Declaration

Applicant(s): Dennis W. Davis, Jeffrey L. Powers, David P. Thimm, James M. Stenz

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Certificate of Mailing

I certify that this correspondence will be deposited with the United States Postal Service as first class mail with proper postage affixed in an envelope addressed to: "Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450" on the date below.

Date: 2004 June 23 Dennis W. Davis Applicant

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Declaration in Support of Accompanying Petition to Make Special Reason VIII - Special Examining Procedure for Certain New Applications - Accelerated Examination

In support of the accompanying Petition to Make Special, the applicants declare as follows:

1. We are the applicants in the above-identified patent application.

2. We state that a formal pre-examination search was conducted by the professional patent and trademark research corporation, Mooreland & Moore, Inc., Suite 302, 2001 Jefferson Davis Highway, Arlington, Virginia, 22202, and that the results of this search were conveyed to Dennis W. Davis in a report dated May 27, 2004. The search was conducted in Class 222, subclasses 165, 175, 181.1, 212, 325, and 494 and Class 224, subclass 148.7 and on computer using ESPACENET (EPO) and the PTO EAST/WEST databases.

3. Copies of all relevant prior art cited by this search are included herewith.

4. A detailed discussion of the references, which points out with the particularity required by CFR 1.111 (b) and (c), how the claimed subject matter is patentable over the references is provided below.

5. We further declare that all statements made herein of our own knowledge are true and that all statements made upon information and belief are believed to be true, and

further that these statements were made with the knowledge that willful false statement and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application and any patent issuing therefrom.

Summary of Cited Prior Art

DiTomasso et al. discloses, in a liquid dispenser worn about a user's limb, a flexible pouch that fits circumferentially about the user's limb and houses a liquid impervious liner containing fluid. A nipple communicating with the liquid contents uses a flap geometry to seal contents of the pouch when contents are not being dispensed. Upon manual pressure to open the sealed nipple, fluid can be dispensed based on pressure resulting from the distention of the flexible pouch and liner, or by application of addition manual pressure to the pouch and liner.

Chen discloses a wrist-worn sprayer comprising a housing that contains a pressurized storage tank, a button incorporating a nozzle for release of pressurized material, and a wrist strap for attachment to a user's wrist.

Hackett et al. discloses an attack repellent device that is attachable to the wrist, by wrist strap, to clothing by clip means, or about the neck on a chain or necklace. The device in various embodiments contains one or more canisters containing a pressurizing fluid and repellent chemical, one or more nozzle assemblies, actuation means and an arming provision to prevent inadvertent user actuation. In the wrist-mounted embodiment, actuation is by means of lifting a flange cover on the device. The other embodiments rely on a spring tensioned slide mechanism for actuation.

Rivas discloses an arm-mounted sprayer, a fluid-containing reservoir, a palm-mounted dispenser, a tube connecting the reservoir with the dispenser, and straps for attaching the aforesaid components at various locations along the arm. The palm-mounted dispenser is a deformable container that releases fluid from a discharge opening on one side upon application of pressure thereto.

Villaveces discloses a pump-based body-worn disinfectant dispenser that uses disinfectant cartridges. Plunger actuation at the top of the device ejects disinfectant from the bottom of the device which is mounted in a vertical position on the body.

Mahaffey et al. discloses a viscous liquid dispenser having flexible sidewalls for dispensing of the liquid upon compression of the dispenser, provision for dispensing fabric wipes, and a mounting clip for attachment of the dispenser assembly to a location on clothing.

Coryell discloses a spray device attached to the underside of the hand for dispensing a chemical repellent by flexion of the hand at the wrist.

Fabek et al. discloses a device for dispensing a pressurized medium from a user's palm comprising a pressurized canister mounted to the palm of the hand by a hand strap and a finger-actuated lever for causing dispensing.

Luca discloses a liquid dispensing device attachable to the leg or ankle of a hunter for drip-dispensing of a camouflaging scent. The flexible dispensing container having a nozzle at one end is subject to pressure caused by foot motion that releases drops of scent liquid on the ground.

Levit discloses a wrist- or ankle-worn water dispenser, that also serves as exercise weight, comprising a bracelet-like dispensing reservoir having accordion-pleated sides to accommodate variable volume of content, and a capped dispensing valve.

Kriss discloses a bracelet-like array of flexible compartments arranged circumferentially about a bracelet. Each compartment has a valve for introduction and dispensing of liquid or semi-liquid substances.

Harrigan discloses a tubular bracelet for dispensing suntan lotion in two primary embodiments. In one embodiment, the bracelet can be opened to create opposite ends of a tube, with dispensing from one such end. In another embodiment, a dispensing nozzle is present on the outer surface of an integral ring.

Ostrow discloses a therapist medication dispensing system that dispenses fluid to the therapist's hand for application to the patient and comprising a dispensing tube or ring that is fed fluid from a remote reservoir.

Patents to Sansonetti, Harding, and Hegoas et al. disclose various material dispensing gloves and mittens.

Patents to Admony, Gerstner, and Hippensteel all disclose various forms of ring or finger-attachable spray devices for dispensing of attack deterrent sprays.

Patents to DeFord et al. and Moss et al. disclose pressure multiplying dispensers that contribute to one embodiment of the present invention.

Of note is the design patent to Barber et al. showing a capped wrist container.

Patentable Distinctions of the Present Invention Over Prior Art Provided by the Claims

The following identified claims of the present invention recite subject matter that is patentable over the prior art of reference for the reasons given.

> **Claim 4**: The prior art does not disclose a wrist-worn dispenser employing a pump mechanism. Such a mechanism offers several advantages over alternative approaches such as actuated pressurized containers and elastic containers with valves. In comparison to pressurized dispensers, the advantages of pump mechanisms include improved dispensing in the context of permitting controlled variable dosaging, use of a greater range of dispensed fluid viscosities, variable distance of fluid ejection , and decreased cost of manufacture. With respect to elastic containers, advantages include ease of dispensing and refilling as well as metering of dispensed amounts.
>
> The following discussion pertains to the distinction provided by claim 4 over the particular cited prior art comprising wrist-worn dispensers. The invention to Chen is a pressurized spray dispenser; the inventor recites gases and chemical repellents as candidate spray constituents. Such a dispenser would

not be a candidate for dispensing of moderate viscosity alcohol or disinfectant gel. Another pressurized dispenser is that of Hackett et al. with an actuation mechanism distinct from that of Chen. The invention to DiTomasso et al. is a wrist-worn dispenser designed for low viscosity liquids such as water. The prime mover in this device is the container tension. The inventions to Kriss, Harrigan, and Levit provide the ability to dispense more viscous liquids. However, the invention to Kriss requires pressure be applied to a wide area of one of the bracelet compartments to extract all stored material. The dispensing mechanism and refill method are not particularly convenient. The invention to Harrigan requires that the device be removed from the wrist in order to dispense material. The pleated nature of the invention to Levit would imply a cleaning procedure prior to refill. Furthermore all palm- and finger-mounted dispensers cited in the prior art rely on pressurized dispensing.

Each of the prior art dispensers designed for dispensing chemicals to repel attackers teach away from the dispensing of material onto the user's skin. The goal of such devices is to project a spray away from the user and onto vulnerable areas of the attacker. Hence the use of pressurized devices is relied upon to provide adequate force to eject aerosols a sufficient distance for this purpose.

Claim 5: A pump mechanism functional with packetized dispenser material is not disclosed. Absent prior art disclosure of pump mechanisms for wrist-worn dispensers, this combination is absent as well.

Claim 7: A bladder internal to the dispenser for segregating air volume from dispenser material volume is not disclosed. There is no instance of a segregated air volume in the cited prior art. In most cases, the prior art devices rely on gravity feed or pressurized dispensing of fluids without need of such partitioning of volumes. Operation of prior art non-pressurized devices at arbitrary orientations with respect to direction of gravitational force, will not provide reliable dispensing.

Claim 8. A wrist-worn squeeze bottle dispenser with a check valve to prevent leakage is not disclosed. None of the prior art non-pressurized dispensers disclose use of a check valve.

Claim 9: Wrist-worn pressure multiplying dispensers are not disclosed in the prior art. Clearly the inventions to DeFord et al. and Moss et al. have not been relied upon by other cited prior art.

Claim 10: Plunger actuation of a wrist-worn dispenser is not disclosed. The prior art of reference does not teach the use of plungers analogous to soap dispensing mechanisms.

Claim 11: A wrist-worn dispenser including a functional watch is not disclosed. The invention to Chen bears resemblance to the form factor of a wrist watch, presumably as a decoy to would be attackers, but does not exhibit any functionality associated with time keeping. No other of the cited prior art references disclose time keeping functions in concert with a dispensing function.

Claim 14: Electric pump actuation means are not disclosed in the cited prior art.

Claim 15: Piezoelectric pump actuation means are not disclosed in the cited prior art.

Claim 16: Solenoid pump actuation means are not disclosed in the cited prior art.

Claim 17: Means to adjust the nature of the material ejection from spraying to streaming are not disclosed in the cited prior art.

Claim 20: Adjustable nozzle means is not disclosed in the cited prior art.

Very respectfully,

Dennis W. Davis

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